



A.D. 1864, 1st March. N^o 504.

SPECIFICATION

OF

JOHN CHAPMAN.

SPINE BAGS.

LONDON:

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1864.



A.D. 1864, 1st MARCH. N° 504.

Spine Bags.

LETTERS PATENT to John Chapman, of Albion Street, Hyde Park, in the County of Middlesex, Doctor of Medicine, for the Invention of "SPINE BAGS TO BE EMPLOYED IN CONTROLLING THE CIRCULATION OF THE BLOOD BY THE COMBINED OR INDEPENDENT APPLICATION OF ICE OR ICED WATER AND WARM WATER OR OTHER FLUID TO THE REGION OF THE SPINAL CORD."

Sealed the 23rd August 1864, and dated the 1st March 1864.

COMPLETE SPECIFICATION filed by the said John Chapman at the Office of the Commissioners of Patents, with his Petition and Declaration, on the 1st March 1864, pursuant to the 9th Section of the Patent Law Amendment Act, 1852.

5 **TO ALL TO WHOM THESE PRESENTS SHALL COME**, I, JOHN CHAPMAN, of Albion Street, Hyde Park, in the County of Middlesex, Doctor of Medicine, send greeting.

WHEREAS I am in possession of an Invention for "SPINE BAGS TO BE EMPLOYED IN CONTROLLING THE CIRCULATION OF THE BLOOD BY THE COMBINED OR
10 **INDEPENDENT APPLICATION OF ICE OF ICED WATER AND WARM WATER OR OTHER FLUID TO THE REGION OF THE SPINAL CORD**," and have petitioned Her Majesty to grant unto me, my executors, administrators, and assigns, Her Royal Letters Patent for the same, and have made solemn declaration that I am
15 the true and first Inventor thereof, and that the same is not in use by any other person or persons to the best of my knowledge and belief.

Chapman's Spine Bags for Controlling the Circulation of the Blood.

NOW KNOW YE, that I, the said John Chapman, do hereby declare that the following Complete Specification under my hand and seal fully describes and ascertains the nature of the said Invention and in what manner the same is to be performed in and by the following statement (that is to say):—

I form a bag of india-rubber or any other flexible waterproof or otherwise 5 suitable material, and divide it into several cells or compartments. These cells or compartments may either communicate with or be permanently independent of each other. In the former case the bag consists of a tube which is flat when empty and oval shaped when sufficiently full, and which is closed at the bottom and open at the top for the admission of the ice or fluid. After 10 putting a certain quantity of ice or fluid into the bag I apply a clamp to the outside of it; the external pressure of this clamp causes the contents of the bag to be hermetically sealed up; I then add more ice or fluid, and apply another clamp, then more ice, and by means of a third clamp hermetically close the mouth of the bag. By applying more clamps I can increase the 15 number of the cells or compartments, and by removing one or more of the clamps I can cause the various cells or compartments to communicate with each other. These clamps compress the back and front of the bag or tube, and thus when it is filled with ice or fluid do not materially alter its oval shape. When the cells or compartments are permanently independent of 20 each other I form the bag or tube as follows:—I form the bag with two vertical divisions or septa, the lower end of the one division or septum being firmly attached to one side of the bag at a little way from the bottom, the lower end of the other division or septum being firmly attached to the same side a little way from the top. In order to fill this bag I put as much ice or 25 fluid into it as will reach up to the part where the lower division or septum begins, then on the opposite side of that division or septum I put as much ice as will reach up to the part where the second division or septum begins; then on the opposite side of that division or septum I put as much ice as will fill the remaining space in the bag; I then hermetically close the mouth of the 30 bag by compressing it with a clamp.

If I should desire to act on the region of the spinal cord, but without bringing anything immediately over the spine itself, I employ for that purpose a bag consisting of two tubular cells or compartments placed a little way apart, communicating with each other at the top and bottom, and having an 35 orifice above the point of junction at the top. A nozzle is affixed to this orifice through which iced or hot water may be poured in order to fill the tubular cells or compartments. The nozzle is opened or closed by means of a

Chapman's Spine Bags for Controlling the Circulation of the Blood.

screwed cap similar to that employed to open or close the nozzle of india-rubber bags used as foot warmers.

I am aware that bags have been made of india-rubber for the application of hot or cold fluids or substances to various parts of the human body; the
5 formation of these bags is well known and constitutes no part of my Invention; what I claim is,—

Firstly, the formation of spine bags divided into several cells or compartments by the external pressure of suitable clamps.

Secondly, the application of clamps (which, when closed, exercise a lateral
10 pressure on the bag, so that when it is full they detract little from its oval shape), to dividing the bag into equally or unequally sized and hermetically sealed cells or compartments, and to hermetically closing the mouth of the bag.

Thirdly, the formation of spine bags composed of india-rubber or any other
15 flexible, waterproof, and otherwise suitable material divided into permanently independent cells or compartments by one or more fixed vertical divisions or septa, and having their mouths hermetically closed by the external pressure of suitable clamps.

And, fourthly, the formation of spine bags consisting of two or more upright
20 tubular cells or compartments.

In witness whereof, I, the said John Chapman, have hereunto set my hand and seal, this First day of March, in the year of our Lord One thousand eight hundred and sixty-four.

JOHN CHAPMAN. (L.S.)

LONDON:

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